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Title: ...**ADAPTIVELY READING ONE OR MORE BUT FEWER THAN ALL PIXELS OF IMAGE SENSOR**

BRIEF OF APPELLANT UNDER 37 CFR 41.37

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Appellant appeals from the final rejection, mailed March 4, 2008, of claims 1-28. This Appeal Brief is pursuant to 37 CFR 41.37. The Commissioner is authorized to charge the fee required under 37 C.F.R. § 41.20(b)(2) to Deposit Account No. 08-2025.

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I. REAL PARTY IN INTEREST

The real party in interest of this application is Hewlett-Packard Development Company, L.P.

II. RELATED APPEALS AND INTERFERENCES

Appellant's undersigned legal representative and the assignee of the pending application are aware of no appeals or interferences which will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF THE CLAIMS

Claims 1-28 stand finally rejected. Appellant appeals the rejection of claims 1-28.

IV. STATUS OF AMENDMENTS

An amendment under 37 C.F.R. 1.116 was filed on May 5, 2008 after the final rejection dated March 4, 2008. This amendment was entered by the Examiner in an Advisory Action dated May 21, 2008, but was not deemed by the Examiner to place the application in condition for allowance.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Concise explanations of the subject matter defined in the independent claims involved in the appeal follow with respect to exemplary illustrative embodiments of the specification and figures.

Referring to independent claim 1:

1. A digital camera (element 100 of FIG. 1; page 5, paragraph [0020]) comprising:

a pixel-differentiated image sensor (element 200 of FIG. 2; page 7, paragraph [0025]) for which selected ones of the entire set of pixels are individually addressable, the image sensor (element 200 of FIG. 2; page 7, paragraph [0025]) being organized into a matrix of partitions, each partition including a member-pixel of the subset referred to as a sampling pixel (element 204 of FIG. 2; page 9, paragraph [0034]); and

a processor (element 106 of FIG. 1; page 6, paragraph [0022]) operable to

obtain sampling data from a sampling pixel (element 204 of FIG. 2; page 9, paragraph [0034]) without having to obtain information from the other pixels (element 202 of FIG. 2; page 9, paragraph [0034]) in the corresponding partition, and

selectively obtain data from at least the entire corresponding partition but fewer than all of the partitions depending upon the sampled-data without having to obtain information from all of the pixels on the image sensor (element 200 of FIG. 2; page 7, paragraph [0025]), wherein each pixel can be individually read, independently of other pixels (element 506 of FIG. 5; page 13, paragraph [0045]); and

access a first set of sampling photo-sensing pixels (element 204 of FIG. 2; page 9, paragraph [0034]) of the image sensor (element 200 of FIG. 2; page 7, paragraph [0025]) and access a second set of non-sampling pixels (element 202 of FIG. 2; page 9, paragraph [0034]) of the image sensor, wherein the first and the second set of pixels have different physical circuitry addressing and control lines going to them (element 200 of FIG. 2; page 7, paragraph [0026]), respectively.

Referring to independent claim 13:

13. A method of selectively reading data available at an output of an image sensor (element 200 of FIG. 2; page 7, paragraph [0025]), the method comprising:

reading less than all data available at the output of the image sensor (element 200 of FIG. 2; page 7, paragraph [0025]) for which selected ones (element 204 of FIG. 2; page 9, paragraph [0034]) but not all of the entire set of pixels are individually addressable, wherein each pixel can be individually read, independently of other pixels (element 506 of FIG. 5; page 13, paragraph [0045]); and

accessing a first set of sampling photo-sensing pixels (element 204 of FIG. 2; page 9, paragraph [0034]) of the image sensor (element 200 of FIG. 2; page 7, paragraph [0025]) and accessing a second set of non-sampling pixels (element 202 of FIG. 2; page 9, paragraph [0034]) of the image sensor, wherein the first and the second set of pixels have different physical circuitry addressing and control lines going to them, respectively (element 200 of FIG. 2; page 7, paragraph [0026]).

Referring to independent claim 24:

24. A digital camera (element 100 of FIG. 1; page 5, paragraph [0020]) comprising:

a pixel-differentiated image sensor (element 200 of FIG. 2; page 7, paragraph [0025]) for which member-pixels of a subset of the entire set of pixels are individually addressable, the image sensor being controllable to read less than all of the pixels without having to read all of the pixels (element 506 of FIG. 5; page 13, paragraph [0045]);

a processor (element 106 of FIG. 1; page 6, paragraph [0022]) operable to

obtain sampling information from a targeted member-pixel (element 204 of FIG. 2; page 9, paragraph [0034]) of the subset without having to read information from the entire set of pixels (element 202 of FIG. 2; page 9, paragraph [0034]); and

selectively obtain information from another one or more but fewer than all member pixels of the entire set based upon the sampling information without having to read all of the pixels on the image sensor (element 200 of FIG. 2; page 7, paragraph [0025]), wherein each pixel can be individually read, independently of other pixels (element 506 of FIG. 5; page 13, paragraph [0045]);

a first set of sampling photo-sensing pixels (element 204 of FIG. 2; page 9, paragraph [0034]) of the image sensor (element 200 of FIG. 2; page 7, paragraph [0025]); and

a second set of non-sampling pixels (element 202 of FIG. 2; page 9, paragraph [0034]) of the image sensor;

wherein the first and the second set of pixels have different physical circuitry addressing and control lines going to them, respectively (element 200 of FIG. 2; page 7, paragraph [0025]).

Referring to independent claim 27

27. A digital camera (element 100 of FIG. 1; page 5, paragraph [0020]) comprising:

a pixel-differentiated image sensor (element 200 of FIG. 2; page 7, paragraph [0025]) for which selected ones of the entire set of pixels are individually addressable, the image sensor (element 200 of FIG. 2; page 7, paragraph [0025]) being organized into a matrix of partitions, each partition including a member-pixel of the subset referred to as a sampling pixel (element 204 of FIG. 2; page 9, paragraph [0034]); and

a processor (element 100 of FIG. 1; page 5, paragraph [0020]) operable to

obtain sampling data from a sampling pixel (element 204 of FIG. 2; page 9, paragraph [0034]) without having to obtain information from the other pixels (element 202 of FIG. 2; page 9, paragraph [0034]) in the corresponding partition, and

selectively obtain data from at least the entire corresponding partition but fewer than all of the partitions depending upon the sampled-data without having to obtain information from all of the pixels on the image sensor (element 200 of FIG. 2; page 7, paragraph [0025]), wherein each pixel can be individually read, independently of other pixels (element 506 of FIG. 5; page 13, paragraph [0045]); and

access a first set of sampling photo-sensing pixels of the image sensor (element 200 of FIG. 2; page 7, paragraph [0025]) and access a second set of non-sampling pixels (element 202 of FIG. 2; page 9, paragraph [0034]) of the image sensor (element 200 of FIG. 2; page 7, paragraph [0025]), wherein the first and the second set of pixels have different physical circuitry addressing and control lines going to them, respectively (element 200 of FIG. 2; page 7, paragraph [0026]).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. The Office Action rejected claims 1-2, 13, 24, 25 and 27-28 under 35 U.S.C. § 102(b) as being anticipated by Lee et al. (U.S. Patent Publication No. 2003/0193593).

B. The Office Action rejected claims 3-9, 14-20 and 26 under 35 U.S.C. § 103(a) as being unpatentable over Lee et al. in view of Kinjo et al (U.S. Patent No. 6,631,208). The Office Action rejected claims 10-11 under 35 U.S.C. § 103(a) as being unpatentable over Lee et al. in view of Horie et al. (U.S. Patent No. 6,480,624). The Office Action rejected claims 21-22 under 35 U.S.C. § 103(a) as being unpatentable over Lee et al. in view of Kinjo et al. and further in view of Horie. The Office Action rejected claim 12 under 35 U.S.C. § 103(a) as being unpatentable over Kinjo et al. in further view of the Examiner's Official Notice. The Office Action rejected claim 23 under 35 U.S.C. § 103(a) as being unpatentable over Kinjo et al. in view of Kinjo et al. in further view of the Examiner's Official Notice.

VII. ARGUMENT

A. The rejection of claims 1-2, 13, 24, 25 and 27-28 under 35 U.S.C. § 102(b) as being anticipated by Lee et al. (U.S. Patent Publication No. 2003/0193593) should be withdrawn because claims 1-2, 13, 24, 25 and 27-28 contain features that are not disclosed by Lee et al.

On page 3 of the March 4, 2008 Final Office Action, the Examiner rejected claims 1-2, 13, 24, 25 and 27-28 as being anticipated by Lee et al.

This rejection under 35 U.S.C. § 102(b) should be withdrawn because all of the features of the Applicants' claimed invention are not disclosed by Lee et al. According to the case law, the MPEP and the U.S. Code, anticipation requires "...that each and every element of the claimed invention be disclosed in the prior art." In addition, the cited reference must be enabling, thus placing the allegedly disclosed matter in the possession of the public. 35 U.S.C. §102; Akzo N.V. v. United States Int'l Trade Comm'n, 1 USPQ 2d 1241, 1245 (Fed. Cir. 1986), ***cert. denied***, 482 U.S. 909 (1987). MPEP Section 706.

Namely, Lee et al. simply disclose X-Y addressable active pixel sensors with shift registers and address control lines, which is very different from the Applicants' claimed invention. In particular, Lee et al. is missing the Applicants' claimed accessing a first set of **sampling** photo-sensing pixels of the image sensor and accessing a second set of **non-sampling** pixels of the image sensor, **wherein the first and the second set of pixels have different physical circuitry addressing and control lines going to them**, respectively.

Although the Examiner argued in the May 21, 2008 Advisory Action that "...different physical circuitry addressing and control lines going to pixels in either of the pixel regions...", the Examiner has mischaracterized Lee et al. when comparing Lee et al. to the Applicants' independent claims. For example, Lee et al. use serial shift registers in general to select image windows for the active sensors and even though Lee et al. have different physical circuitry addressing and control lines, **unlike** the Applicants' claimed invention, Lee et al. does **not** have physical circuitry addressing and control lines **divided out and organized between** a first set of **sampling** photo-sensing pixels of the image sensor and a second set of **non-sampling** pixels. Instead, the different physical circuitry addressing and control lines in Lee et al. are **not** divided out and organized between the **sampling** pixels and **non-sampling** pixels, but are merely arbitrarily assigned to pixels based on board

simplicity. Consequently, because the Lee et al. reference is missing at least one feature of the claimed invention, the anticipation rejection must be withdrawn. *MPEP 2131.*

B. The rejection of claims 3-9, 14-20 and 26 under 35 U.S.C. § 103(a) as being unpatentable over Lee et al. in view of Kinjo et al (U.S. Patent No. 6,631,208), the rejection of claims 10-11 under 35 U.S.C. § 103(a) as being unpatentable over Lee et al. in view of Horie et al. (U.S. Patent No. 6,480,624), the rejection of claims 21-22 under 35 U.S.C. § 103(a) as being unpatentable over Lee et al. in view of Kinjo et al. and further in view of Horie, the rejection of claim 12 under 35 U.S.C. § 103(a) as being unpatentable over Kinjo et al. in further view of the Examiner's Official Notice, and the rejection of claim 23 under 35 U.S.C. § 103(a) as being unpatentable over Kinjo et al. in view of Kinjo et al. in further view of the Examiner's Official Notice all should be withdrawn because these claims contain features that are not disclosed, taught or suggested by any combination of the cited references.

All of the rejections under 35 U.S.C. § 103(a) should be withdrawn because all of the features of the Applicants' claimed invention are not disclosed, taught or suggested by any combination of the cited references.

According to case law and the MPEP, all of the claimed elements of an Applicant's invention **must be considered**. (In re Kotzab, 55 USPQ 2d 1313, 1318 (Fed. Cir. 2000). *MPEP 2143.*) [*emphasis added*]. If **one** of the elements of the Applicant's invention is missing from or not taught in the cited references and the Applicant's invention has advantages not appreciated by the cited references, then no prima facie case of obviousness exists. (*MPEP 2143.03).* The Federal Circuit Court has stated that it was error not to distinguish claims over a combination of prior art references where a material limitation in the claimed system and its purpose was not taught therein. In Re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Specifically, Kinjo et al. merely disclose a digital laboratory system 10 (see FIG 1) for performing red-eye correction on digital images and Horie et al. simply disclose a system for discriminating color using a luminance calculator (see Abstract of Horie et al.). In any combination, the references are still missing the Applicants' claimed accessing a first set of **sampling** photo-sensing pixels of the image sensor

and accessing a second set of **non-sampling** pixels of the image sensor, wherein the first and the second set of pixels have different physical circuitry addressing and control lines going to them, respectively. As such, since the combined cited references are missing at least one feature of the claimed invention, the obviousness rejections must be withdrawn.

C. The rejections of the claims under 35 U.S.C. § 103(a) should be withdrawn because even though the combined references do not disclose, teach, or suggest all of the features of the Applicants' claimed invention, the references should not be considered together because the Kinjo et al. reference teaches away from the Applicants' claimed invention.

MPEP section 2143.01, part V. clearly states that "[I]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Also, MPEP section 2143.01, part VI. states that "[I]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

With regard to Kinjo et al., FIG. 1 of Kinjo et al. **explicitly** discloses a line CCD 30 included within a line CCD scanner 14. Line CCD 30 of Kinjo et al. is conventional in nature such that if line CCD 30 were to be read (i.e., if output were to be generated by line CCD 30), then all pixels of line CCD 30 of Kinjo et al. would be read/output. In other words, it would be impossible for less than all of the pixels of line CCD 30 of Kinjo et al. to be read from (output by) line CCD 30. The output of line CCD 30 of Kinjo et al. is converted from analog to digital by A/D converter 32, with the output of A/D converter 32 representing the output of line CCD scanner 14.

Consequently, the function and operation of Kinjo et al. clearly would be destroyed if the Applicants' claimed accessing a first set of sampling photo-sensing pixels of the image sensor and accessing a second set of non-sampling pixels of the image sensor, wherein the first and the second set of pixels have different physical circuitry addressing and control lines going to them, respectively were used.

This is because the line CCD 30 of Kinjo et al. **cannot** have different physical circuitry addressing and control lines going to the pixels. As a result, Kinjo et al. **cannot** read/output less than all of its pixels, like the Applicants' claimed invention, where a pixel-differentiated image sensor is used for which member-pixels of a subset of the entire set of pixels are individually addressable, the image sensor being controllable to read less than all of the pixels without having to read all of the pixels.

Therefore, the proposed modification or combination would render Kinjo et al. being modified unsatisfactory for its intended purpose and would change the principle of operation of the invention in Kinjo et al. being modified if Kinjo et al. used the Applicants' claimed pixel-differentiated image sensor with pixels that are individually addressable and were to access a first set of sampling photo-sensing pixels of the image sensor and access a second set of non-sampling pixels of the image sensor, wherein the first and the second set of pixels have different physical circuitry addressing and control lines going to them, respectively. In fact, Kinjo et al. **cannot** be combined with any reference that reads individually addressable pixels because the pixels in Kinjo et al. are unquestionably **not** intended to be individually addressable and are **only** for group processing purposes (see Abstract, Summary and FIG. 1 of Kinjo et al.).

As a result, this "teaching away" prevents the Kinjo et al. reference from being used by the Examiner. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). Thus, since the Applicants' claimed elements are **not** disclosed, taught or suggested by the combined references and because Kinjo et al. **teach away** from the Applicants' claimed invention, Kinjo et al. **cannot** be used as a reference alone or in combination with other references, and hence, the Applicants submit that the rejections should be withdrawn. *MPEP 2143.*

D. Among other reasons, the rejections of the claims under 35 U.S.C. § 103(a) should be withdrawn because the Examiner used impermissible hindsight when the claims were rejected.

It is well-settled law that there must be a basis in the references for combining or modifying the references. Namely, the Examiner **cannot** use a "tack-on" approach to **arbitrarily "pick and choose" elements** from numerous references

and combine these elements using hindsight. Any combination of elements in a manner that reconstructs the Applicant's invention only with the benefit of **hindsight** is insufficient to present a prima facie case of obviousness. Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 796 F.2d 443, 230 USPQ 416 (Fed. Cir. 1986). [*emphasis added*].

Moreover, "[T]he genius of invention is often a combination of known elements which in hindsight seems preordained. To prevent hindsight invalidation of patent claims, the law requires some 'teaching, suggestion or reason' to combine cited references." Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1579, 42 USPQ 2d 1378, 1383 (Fed. Cir. 1997). When the reference in question seems relatively similar "...**the opportunity to judge by hindsight is particularly tempting**. Consequently, the tests of whether to combine references need to be applied rigorously," especially when the Examiner uses numerous references. McGinley v. Franklin Sports Inc., 60 USPQ 2d 1001, 1008 (Fed. Cir. 2001). [*emphasis added*]. Since the Examiner's rejection is unquestionably based on hindsight, the rejection is improper and must be withdrawn. Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.

Even if the references in question seem relatively similar "...**the opportunity to judge by hindsight is particularly tempting**. Hence, the tests of whether to combine references need to be applied rigorously," especially when the Examiner uses a reference that does not explicitly disclose the exact elements of the invention or **teaches away** from the Applicant's claimed invention, which is the case here.

This is because **clearly Kinjo et al. teach away from the claimed invention** and any combination of the cited references do **not** disclose, teach or suggest accessing a first set of sampling photo-sensing pixels of the image sensor and accessing a second set of non-sampling pixels of the image sensor, wherein the first and the second set of pixels have different physical circuitry addressing and control lines going to them, respectively. McGinley v. Franklin Sports Inc., 60 USPQ 2d 1001, 1008 (Fed. Cir. 2001).

Since hindsight cannot be used to support the rejections, the combined cited references cannot render the Applicants' invention obvious and the rejections are improper and should be withdrawn. Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc. Accordingly, this teaching away by Kinjo et al. and the failure of the cited references in any combination to disclose, suggest or provide motivation

for the Applicants' claimed invention, indicates a lack of a prima facie case of obviousness (MPEP 2143).

Last, with regard to the dependent claims, since they depend from the above-argued respective independent claims, they are therefore patentable on the same basis. (MPEP § 2143.03). Also, the other references cited by the Examiner also have been considered by the Applicants in requesting allowance of the dependant claims and none have been found to teach or suggest the Applicants' claimed invention.

E. Conclusion

Accordingly, the failure of the cited references to disclose, suggest or provide motivation for the Appellant's claimed invention indicates a lack of a prima facie case of obviousness (MPEP 2143), and thus, the rejections should be withdrawn. In view of the foregoing, reversal of the rejections of the claims is respectfully requested. As such, for any one of the above-stated reasons, the rejections of the respective claims should be reversed. In combination, the above-stated reasons overwhelmingly support such reversal. Thus, Appellant respectfully requests that the Board reverse the rejections of the claims.

Respectfully submitted,

Date: September 4, 2008 Attorney:

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VIII. CLAIMS APPENDIX

1. A method of selectively reading less than all information available at an output of an image sensor for which member-pixels of a subset of an entire set of pixels are individually addressable, the method comprising:

sampling information, at the output of the image sensor, representing a targeted member-pixel of the subset without having to read information representing the entire set of pixels;

selectively reading information, at the output of the image sensor, representing at least one or more, but fewer than all member pixels, of the entire set based upon the sampling information without having to read information representing all pixels on the image sensor, wherein each pixel can be individually read, independently of other pixels; and

accessing a first set of sampling photo-sensing pixels of the image sensor and accessing a second set of non-sampling pixels of the image sensor, wherein the first and the second set of pixels have different physical circuitry addressing and control lines going to them, respectively.

2. The method of claim 1, further comprising:

reading information, at the output of the image sensor, representing member-pixels of the entire set that are located within a predetermined area adjacent to or surrounding the targeted member-pixel of the subset.

3. The method of claim 2, further comprising:

organizing the entire set of pixels into partitions, each partition having multiple pixels;

mapping one or more of the partitions one or more of the member-pixels of the subset, respectively;

reading information, at the output of the image sensor, representing all member-pixels of the subset so as to generate a plurality of samples;

handling the samples in a manner that preserves a relationship between each sample and corresponding member-pixel of the subset; and

reading information, at the output of the image sensor, representing one or more of the partitions mapped to the member-pixels of the subset but not all of the partitions based upon the plurality of samples.

4. The method of claim 1, further comprising:

determining if the sampling information exceeds a reference value; and

reading information, at the output of the image sensor, representing the one or more but fewer than all member-pixels of the entire set if the sampling information exceeds the reference value.

5. The method of claim 4, wherein the reference value represents one of a user-determined threshold or a saturation threshold for the targeted member-pixel of the subset.

6. The method of claim 4, further comprising:

reading information, at the output of the image sensor, representing all member-pixels of the subset so as to generate a plurality of samples, each member-pixel of the subset having a corresponding reference value, respectively;

applying the determining step to each of the samples; and

reading information, at the output of the image sensor, representing the one or more but fewer than all member-pixels of the entire set located within a predetermined area adjacent to or surrounding member-pixels for which the corresponding sample exceeds the respective reference value.

7. The method of claim 4, wherein:

the sampling information is the current sampling information and the reference value is a first reference value; and

the method further comprises:

taking the difference between the current sampling information and the first reference value; and

reading, at the output of the image sensor, information representing the one or more but fewer than all member-pixels of the entire set if the difference exceeds a second reference value.

8. The method of claim 7, wherein the first reference value is the previous sampling information, respectively.

9. The method of claim 7, further comprising:

setting the first reference value to be equal to the current sampling information if the difference exceeds the second reference value.

10. The method of claim 1, further comprising:

measuring an elapsed time; and

reading information, at the output of the image sensor, representing all member-pixels of the subset if the elapsed time exceeds a predetermined amount.

11. The method of claim 10, further comprising:

measuring another instance of elapsed time upon reading information, at the output of the image sensor, representing all member-pixels of the subset.

12. The method of claim 1, wherein the image sensor is one of a CCD image sensor for which the subset is smaller than the entire set and a CMOS image sensor for which the subset is the same as the entire set.

13. A method of selectively reading data available at an output of an image sensor, the method comprising:

reading less than all data available at the output of the image sensor for which selected ones but not all of the entire set of pixels are individually addressable, wherein each pixel can be individually read, independently of other pixels; and

accessing a first set of sampling photo-sensing pixels of the image sensor and accessing a second set of non-sampling pixels of the image sensor, wherein the first and the second set of pixels have different physical circuitry addressing and control lines going to them, respectively.

14. The method of claim 13, further comprising:

organizing the image sensor into a matrix of partitions, each partition including a member-pixel of the subset referred to as a sampling pixel;

sampling data, at the output of the image sensor, representing a sampling pixel without having to read information representing the other pixels in the corresponding partition; and

selectively reading data, at the output of the image sensor, representing at least the entire corresponding partition but fewer than all of the partitions depending upon the sampled-data without having to read all of the pixels on the image sensor.

15. The method of claim 14, further comprising:

reading data, at the output of the image sensor, representing partitions located within a predetermined area adjacent to or surrounding the sampling pixel.

16. The method of claim 14, further comprising:

determining if the sampled-data exceeds a reference value; and

reading data, at the output of the image sensor, representing the one or more but fewer than all member-pixels of the entire set if the sampled-data exceeds the reference value.

17. The method of claim 16, wherein the reference value represents a saturation threshold for the targeted member-pixel of the subset.

18. The method of claim 16, wherein:

the sampled data is the currently sampled data and the reference value is a first reference value; and

the method further comprises

taking the difference between the currently sampled data and the first reference value, and

reading, at the output of the image sensor, information representing the one or more but fewer than all member-pixels of the entire set if the difference exceeds a second reference value.

19. The method of claim 18, wherein the first reference value is the previously sampled data, respectively.

20. The method of claim 18, further comprising:

setting the first reference value to be equal to the currently sampled data if the difference exceeds the second reference value.

21. The method of claim 14, further comprising:

measuring an elapsed time; and

reading data, at the output of the image sensor, representing all member-pixels of the entire set of pixels if the elapsed time exceeds a predetermined amount.

22. The method of claim 21, further comprising:

measuring another instance of elapsed time upon reading information, at the output of the image sensor, representing the entire set of pixels.

23. The method of claim 14, wherein the image sensor is one of a CCD image sensor for which the subset is smaller than the entire set and a CMOS image sensor for which the subset is the same as the entire set.

24. A digital camera comprising:

a pixel-differentiated image sensor for which member-pixels of a subset of the entire set of pixels are individually addressable, the image sensor being controllable to read less than all of the pixels without having to read all of the pixels;

a processor operable to

obtain sampling information from a targeted member-pixel of the subset without having to read information from the entire set of pixels; and

selectively obtain information from another one or more but fewer than all member pixels of the entire set based upon the sampling information without having to read all of the pixels on the image sensor, wherein each pixel can be individually read, independently of other pixels;

a first set of sampling photo-sensing pixels of the image sensor; and

a second set of non-sampling pixels of the image sensor;

wherein the first and the second set of pixels have different physical circuitry addressing and control lines going to them, respectively.

25. The digital camera of claim 24, wherein the processor is operable to selectively obtain information from member-pixels of the entire set that are located within a predetermined area adjacent to or surrounding the targeted member-pixel of the subset.

26. The digital camera of claim 25, wherein

the entire set of pixels is further organized into partitions, each partition having multiple pixels;

one or more of the partitions being mapped one or more of the member-pixels of the subset, respectively;

the processor is operable to read information from all member-pixels of the subset so as to generate a plurality of samples;

the processor further being operable to

handle the samples in a manner that preserves a relationship between each sample and corresponding member-pixel of the subset, and

read information from one or more of the partitions mapped to the member-pixels of the subset but not all of the partitions based upon the plurality of samples.

27. A digital camera comprising:

a pixel-differentiated image sensor for which selected ones of the entire set of pixels are individually addressable, the image sensor being organized into a matrix of partitions, each partition including a member-pixel of the subset referred to as a sampling pixel; and

a processor operable to

obtain sampling data from a sampling pixel without having to obtain information from the other pixels in the corresponding partition, and

selectively obtain data from at least the entire corresponding partition but fewer than all of the partitions depending upon the sampled-data without having to obtain information from all of the pixels on the image sensor, wherein each pixel can be individually read, independently of other pixels; and

access a first set of sampling photo-sensing pixels of the image sensor and access a second set of non-sampling pixels of the image sensor, wherein the first and the second set of pixels have different physical circuitry addressing and control lines going to them, respectively.

28. The digital camera of claim 27, wherein the processor is operable to selectively obtain data from partitions located within a predetermined area adjacent to or surrounding the sampling pixel.

IX. EVIDENCE APPENDIX

Copies of evidence are not enclosed.

X. RELATED PROCEEDINGS APPENDIX

Appellants are not aware of any related proceedings.